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Newsletter of The New Zealand Association of Radio Transmitters, Upper Hutt Branch 63, Inc.

ZL2VH Newsletter – March 2023

President's Report

Greetings All, apologies for the late QST, time flies when you don't pay attention.

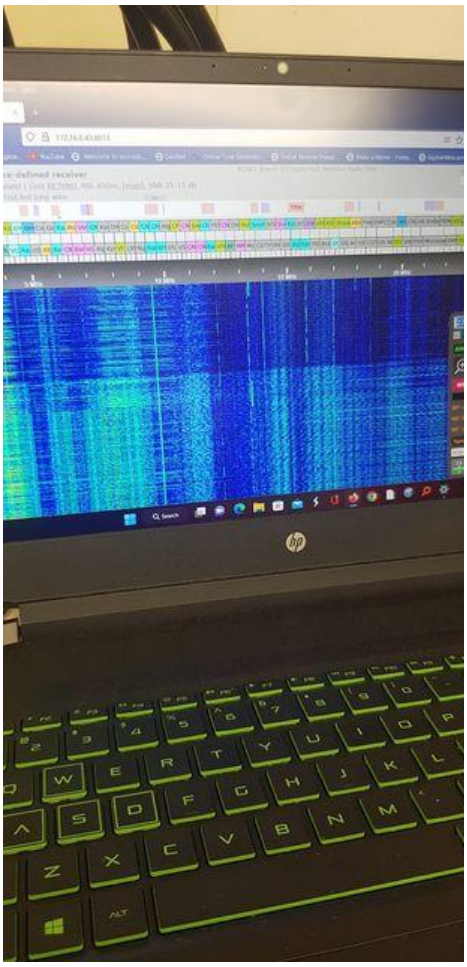
The first part of the year has been very quiet with just the Friday night meetings starting to attract some new faces.

Jock White Field day was a no-go for us this year due to multiple reasons, no caravan, no gliding strip, bad weather and little interest as well as people had other things to do of a higher priority. There will be other opportunities throughout the year for field frolics.

Simon ZL2BRG and myself have been up to the repeaters to locate and rectify the QRM on the SDR, Simon will be able to tell you more about that.

We will be going up again soon to configure an alternative power source for the DStar system.

John ZL2TWS will be back in country soon and will be carrying out work on the repeaters as well.



Some websites for your interest...

https://www.sarcnet.org/sarctrac.html

http://www.df2zc.de/downloads/emenl202302_final.pdf

It’s coming up to that time of the year again where we will be holding the AGM. Items for discussion, nominations for committee etc. are to be sent to the club secretary.

Date to be advised.

73

Mike ZL2NSA

Branch 63 Repeater Report

Status Updates:

Climie KiwiDR

A brief spell of nice weather allowed a couple working bees at Climie to investigate noise on the Climie HF sdr. A number of sources were found-

1. KiwiSDR Wall-wart psu
2. Wifi Link PoE PSU
3. Wifi Link cabling
4. Dstar Rack SR250 Switch mode 12v PSU

John ZL2TWS had already made a linear PSU to replace the Kiwisdr's wallwart, which was installed.

The screen was disconnected on the wifi ethernet cable, so was a simple matter to re-connect the screen to earth.

The SR250 Dstar rack PSU was found to be radiating a fair amount of noise through out the hf bands to 30MHz. The SR250 could be faulty or more likely in-spec since the SR250 in the North Hut powering 730 does the same thing to a lesser extent.

As a short term solution The DStar SR250 has been removed and the Linear 6M psu was wired to power the Dstar Rack and standby-batteries.

The SR250 noise performance will be investigated to see if improvements can be made. Since the PSU housed in a metal box its emissions are probably conducted and being radiated by the mains cabling.

1292 23cm On Air. The 1272 Rx input frequency is about 2.5KHz high. The 1292 Tx frequency is about 700Hz high. These are due to xtal ageing and will

	be moved back on frequency within the next few months.
10m Beacon	On Air
3cm Beacon	The Beacon has been repaired and is on-soak at ZL2BRG's qth, pending a suitable time to re-install at Climie.
DSTAR 5425,860	Running on temporary PSU
730	On Air
395 6M	On Air. Running on temporary PSU

From John ZL2TWS.....

ISS Dodges Commercial Imaging Satellite.

The International Space Station adjusted its orbit March 6 to avoid a close approach by an imaging satellite operated by Satellogic, the latest evidence of growing congestion in low Earth orbit.

NASA said in a March 6 blog post that the Progress MS-22 spacecraft docked to the station fired its thrusters for a little more than six minutes, raising the station's orbit to move out of the way of what the agency called an Earth observation satellite. According to Roscosmos, the maneuver, lasting 375.8 seconds, changed the station's velocity by 0.7 meters per second.

NASA spokesperson Sandra Jones told SpaceNews March 7 that the spacecraft would have approached within about 2.7 kilometers of the station without the maneuver. She did not identify the satellite involved in the close approach to the station other than an "Argentine earth

observation satellite launched in 2020." Other sources said the satellite was NuSat-17, also called NewSat-17, one of 10 satellites launched in November 2020 by Satellogic, headquartered in Buenos Aires.

A Satellogic spokesperson said late March 7 it received a conjunction data message, or CDM, from the 18th Space Defense Squadron, the Space Force unit that handles space situational awareness activities, about this close approach.

The orbit of NewSat-17 and the other nine satellites launched in 2020 have been gradually decaying, and are now crossing the orbital altitude of the ISS. That is an increasing concern for ISS operations as it and other Earth observation satellites typically operate in higher sun-synchronous orbits that will decay if not actively de-orbited at the end of the missions.

The March 6 manoeuvre, NASA said, will not affect upcoming spacecraft going to and from the station. However, amateurs using the ARISS repeaters will want to be sure to have updated Keplerian elements that take the new orbit into account.

[Thanks to SpaceNews for the above information]

We are always looking for articles to fill the pages of newsletter. Please forward anything, no matter how large or small, to the editor - Eric ZL2SET – ericwilby@gmail.com.